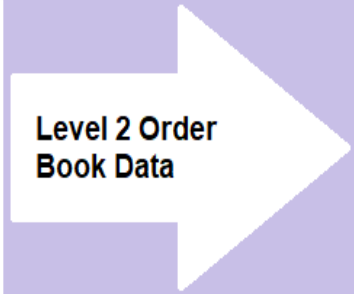


## **Table of Contents for MW OFA Book Addon**

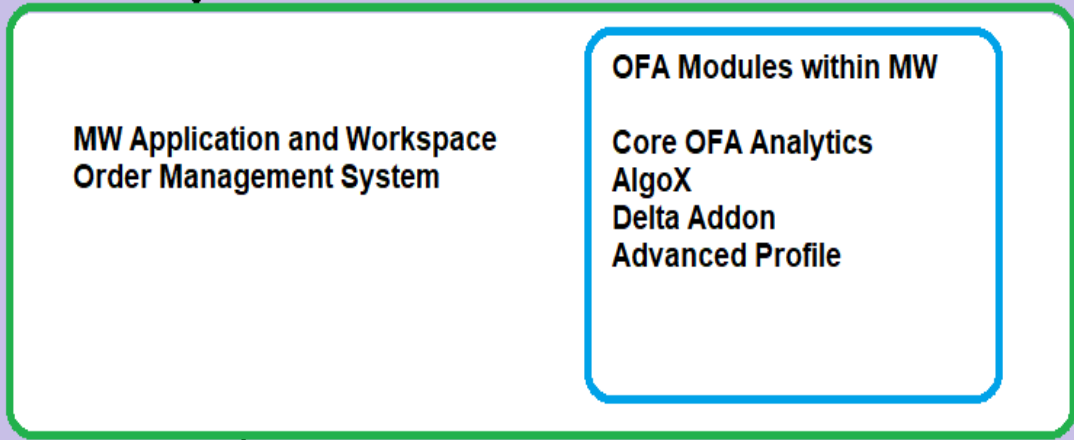
- 1. Component Overview of OFA and the updated OFA Addon Suite with the new Addon(s) and interaction with OFA / MW components**
- 2. Introductory Summary of OFA Book Addon Study followed by Features and Benefits**
- 3. Settings for the two MW OFA Book Studies – New Aggregate Line on close for (recently added for NT8) included uses line on close overlay on Price Panel in MW. So we have Four view options for these Tools.**
- 4. Case studies and illustrations of the tools combined with some of the other Addons ie Wave Volume. First 11 case studies for MW and included for comparison 7 case studies for the same tools in NT8**
- 5. FAQ Section**
- 6. Motive Wave Download Page on the Web Site illustrating the Files to download**

IQFeed  
Rithmic  
CQG  
Broker  
Feed  
Data



Level 2 data required

OFA Book Study for MW  
Imported JAR File



OFA WaveVolume Study  
for MW  
Imported Jar File



OFA Book Study and  
WaveVolume Study can be  
used with MW bar types ie  
Seconds / Range / Renko  
etc. No need for Core OFA  
to use these.



## OFA Book Addon Summary

To facilitate users incorporating the Limit Order Book (**LOB**) state and the current shape into the OFA toolset – Net difference of bids and Offers ; a suite of indicators and tools is provided in this OFA Addon. This provides an effective alternative to staring at the hypnotic fast moving prices and bid offer levels on the DOM / Depth of market tool. Skilled DOM traders will perhaps use some of the 3<sup>rd</sup> party tools who provide detailed DOM information that extends that available in the standard MW DOM tool. Deriving clear useable information from the DOM on its own is a challenge still for many traders.

**IMPORTANT – in order to use this Addon/Study as is stated on the Order Page this requires Level 2 data. This may require an additional data subscription from the Data Vendor you use in MW or via your Broker data connection.**

The features of this Addon have been in Research and Development for well over a year with observations and refinements being made during that timeframe before releasing as part of the OFA Order flow Addon suite. It should be noted that at least 5 variations of calculations and testing of the limit order book calculations for the OFA Auction candles took place before presenting the current version. I did investigate other tools out there and none were able to provide any value that made pragmatic sense as to the state of the LOB (limit order book) shape and net changes as the OFA Auctions (Probe & Rotation (Non-Time based) particularly) evolved. Hence the decision to build this Addon available to OFA Users with 4 display options (3 options in OFA Book) and the total Bid and total Ask LOB values as separate lines.

In reviewing alternative 3<sup>rd</sup> party tools it reinforced the importance of the depth calculation process followed by extensive testing and observation.

The key aspect to this Addon is in the tracking of the more 'inside book' – default 8 – 10 depth levels as the fast changes in LOB bids / offers dynamically change (being added and removed) for the evolution and duration of OFA Bars.

A good starting point I discovered with most instruments is start point 1 (default) and setting Level of Depth to 7 or 8 ie ES. For CL GC may want to use 10 as they are a bit more illiquid.

What is unique with OFA PR Auction is not only that time is not a factor but the smaller rotation / compared to the probe when used in conjunction with the POC/Cluster zone of the Auction bar can give us strong clues as to the migration of liquidity to the bigger resting levels one can observe on the DOM be that in MW or 3<sup>rd</sup> party tool or with the MW Historical Heatmap which shows rest orders of larger (Inst) liquidity levels. These outside levels become a magnet for price to test if is real resting liquidity.

This compliments the significant and important other side of the executed market orders that OFA auctions display in the Auctions and POC levels and in the OFA print. After several years ago now initiating development of a Depth tool similar to that in Bookmap & Jigsaw it became apparent those tools adequately covered that aspect and style of trading. So I wanted to offer & create a tool that would more directly compliment OFA with the important LOB liquidity equation of the market (the other side of the market orders) and have an effective useable visual tool that trading decisions and

analysis could be based upon.

It is important that this is mentioned at this stage so that a user does not think it is just a case of reading the net book change and boom you have a guaranteed buy or sell trade. It will take time and practice and engaging with the tools and the chart price action & structure to develop a more consistent 'higher probability' read of the Limit Order Book Net Difference Activity.

As with anything in trading nothing is guaranteed. Review some of the case studies and key patterns to look for (outlined below) and observe as you develop an understanding of the OFA Book process (Level 2) in conjunction with Price action/Structure and the market orders (what you see in OFA Bars traded orders Level 1)

### **Some background on Spoofing**

With spoofing defined as 'the illegal practice of bidding or offering with intent to cancel before execution' HFT trading the primary form of algorithmic trading places the regulatory bodies in a conflicted position as HFT makes huge profits.

With ultra fast orders being added and removed from the order book – combined with ice orders and hidden orders and volatile markets – multiple plausible rationalisations and reasons can be proposed for why bid limits or ask limits were added or removed. Is change in market dynamics or overall value proposition for a trade/news event reversed. With milli and likely sub-milli second activity how do you begin to prove a case for this?

The point in mentioning this activity is that it is important to be aware that degrees of this 'spoofing' process still exist on occasions. You can see this in the net book changes for the OFA Auctions and I will highlight some of the patterns to be aware and mindful of. Several of these scenarios are illustrated in the Case studies section later in this document. This and in conjunction with the supporting videos highlights these and the context. This equally does not mean it happens on every swing but is important to draw attention to this aspect of the dynamic order book changes and some of the 'intent' behind the net difference changes. Other times it is clear what the limit order book changes are conveying with no games or tricks – just simple clear bid/offer supply/demand entering the market !

I do not believe it is necessary to understand the deeper complex mechanics of this process. But is for you to be aware of its existence and use at certain times ; locations, swing highs/lows and at certain key price levels (Open Overnight High Low Previous RT High Low and key Prices for you market ie 00 50 levels).

### **Some Scenarios and Patterns to pay attention to**

Whilst not possible to cover every permutation of their use – pay attention to the main ones covered and outlined here, some of these are illustrated in the Case studies section. This will inform and prepare you to assess their existence as you read the price structure / levels and order flow from OFA and the OFA Book. To begin with focus on some of the **initial** patterns to build confidence then work down towards some of the more advanced scenarios.

Pace yourself and do not attempt to understand all of them at once, particularly if you are new to understanding the information in the Limit Order Book. I would rather present a comprehensive outline of some of the more straight forward ones and include the more 'complex' ones as you will come across these and it is important to be aware of them.

Note : Used in conjunction with the OFA Net Delta/MW Net Delta will enhance and support your reading of this information. However this is not essential to still benefit from using the OFA Book Indicators.

- ◆ Look for OFA Book shape changes at Swing Highs and Lows – this is where the Net Book changes from predominantly Bid near the Highs to a clear transition to net Supply. Then look for changes from predominantly Ask/Offer near the Lows to a clear transition to net Bid. Ideally with the OFA Book you want to see a clear significant candle body change from bid to supply (red is default color) or vice versa.
- ◆ At the Lows once the book changes from net supply to net bid and a new up swing initiates; look for net buy deltas to be in line with the Bid book pressure this helps to confirm that Offer liquidity is being withdrawn on the Offer side relatively speaking. Look for a clear change in the body of the OFA Book candle from Offer/Ask to net Bid.
- ◆ At the Highs Once the book changes from net bid to net supply and a new down swing initiates; look for net sell deltas to be in line with the Offer book pressure. This helps to confirm that Bid liquidity is being withdrawn on the Bid side relatively speaking. Look for a clear change in the body of the OFA Book candle from Bid to net Offer/Ask.
- ◆ Look for the OFA book and delta to be both the same color ie net bid with book and net delta buyers and net offer/Ask with book and net delta sellers. This is a higher probability scenario as net buying deltas with the net bid book confirms the withdrawal of liquidity on the offer side and the market orders then consume the reduced Offer/Ask liquidity. For the other side as net selling deltas with net Ask/Offer book show, this confirms the withdrawal of liquidity on the Bid side and the market orders then consume the reduced Bid liquidity.
- ◆ At times you will observe when there are many net delta buyers (market orders) at the low range ie crossing spread (market orders) showing. The market will try to get prices lower to shake off and test these buyers and thus get volume at lower prices. Observe the OFA Book patterns in these areas. This is where the Limit Order Book will try to encourage sellers with net Offers in LOB then push lower. With this scenario sometimes you will observe spike in selling deltas as the earlier buyers are shaken out. Look for a book change to net Bids to absorb these sellers if Big Players see value to reverse the market up. There are times when they cannot get sellers at lower prices (no change in the net selling delta) depending on market conditions and the market will mark up and continue higher with a clear book change to net Bids.
- ◆ Conversely at times you will observe when there are many net delta sellers (market orders) at the high range ie crossing spread (market orders) showing. The market will try to get prices higher to shake off and test these sellers and thus get volume at higher prices. Observe the OFA Book

patterns in these areas. This is where the Limit Order Book is trying to encourage buyers at higher prices to get volume accumulation to then push higher. With this scenario sometimes you will observe a spike in buying deltas as earlier sellers are shaken out. Look for a book change to net Offers to absorb these buyers if Big players see value to reverse the market down. There are times when they cannot encourage buyers at higher prices (no change in the net buying delta) depending on market conditions and the market will mark down and continue lower with a clear book change to net Offers.

- ◆ Regarding the above the following context also applies. The scenario of strong net delta buying at the lows (market orders) will have the Market Maker (MM)/Dealers on the other side Offer/Ask. So look for the market in this instance to migrate lower as those on the other side of those longs will be net short at this point. Shaking off the buyers (weak holders in Wyckoff terminology) will facilitate MM balancing books. Remember MM are not positional traders and always strive to balance their book inventory.
- ◆ The converse is true for the net selling at the highs.
- ◆ Your attention is drawn to the above 2 scenarios to get you thinking and observing and asking what is happening and Why and the activity on the book. The more you gain exposure and experience of these scenarios, will help to build your confidence and train your eye to the price structure and book and likely outcomes.
- ◆ **Watch for practice of 'spoofing'** as outlined in the introduction above. This is where the dealers/MM can try to encourage buyers into a buy at high price or encourage sellers at low price. Observe the spike in the net Book liquidity for the OFA Auction using the cumulative / bar by bar candles or with the bid line / ask lines the other option to use. Check the net buying delta/volume into these highs to see if supporting any move higher and the net selling delta into the lows. Low buy volume at highs or low volume at lows is 'suspect' to continuation of buying at higher prices or selling at lower prices.
- ◆ Look for when a strong sell book is broken above and tested – this may be a pause in the move for profit taking before this level is broken above and tested before continuation higher.
- ◆ Look for when a strong bid book is broken below and tested – this may be a pause in the move for profit taking before this level is broken below and tested before continuation lower.
- ◆ **For those users with access to Depth levels > 10 in their data feed :**
- ◆ The outside levels ie 15 20 30 & above ticks outside of the current market price are where resting orders are placed by institutions. This advertised liquidity and the difference between the net offers and bids leads to pull of price to that higher liquidity. For example if the net offers for 50 depth levels is 800 and net bids for the same range is 350 – price will trend to migrate and gravitate to the **offer** side. For those with data feeds such as Rithmic who have those outside Depth levels and or tools such as Bookmap / Jigsaw those Macro liquidity levels on the outer levels can be observed. Then the OFA Book indicators aligned with the Auction Bars can be seen as potentially showing the

inside book migrating towards these larger outer liquidity levels.

- ◆ Combine this with the Macro level view of the order book for those with Bookmap or other tools that show resting orders at greater depth levels ie 50 to 100 and beyond in some cases market depth levels.
- ◆ **NOTE :** From all of the above scenarios focus on **one or two** to begin with and learn the clear signs and only take the clear best quality ones where all lines up. Some of the above are a bit more advanced and take time to learn. You only need to build skill in recognising a few of these to help in your trading. Then build upon the other more nuanced/subtle advanced patterns as your confidence and experience grows over time.

### **Some other points worthy of consideration :**

It should be stated that the passive orders that show at the levels above and below the current market price in the LOB (Ladder) are constantly being pulled and added and changed as the best bid and best offer adjust based on the Last traded market price. These changes happen very fast. This OFA Book indicator dynamically keeps track of these changes providing immediate updates to the net bid ask limit order book values for the duration of the OFA Auction/Bar. This takes into account the number of Limit Order Book levels defined in the input parameter and can be adjusted to suit your requirements and levels needed.

Be aware of lower liquidity periods Asia & pre London & outside of markets prime high volume periods. Changes in the book can reflect more normal Market Maker rotations they use to keep their books balanced as they are not positional traders. As the market moves up more limit Offers/Ask are added & as the market moves down more limit Bids are added. So be mindful of the shift on the cash open to prior and Asia and London sessions as more liquidity and algorithms come into the market! You will see a difference in the US Session as the morning open starts for Equities/Nymex etc.

It should be noted that much of the liquidity showing in the DOM and Limit Order Book particularly at the levels further away from the current market price may be fake with various algorithmic patterns present to mislead and trap traders.

Once an accumulation phase has completed at a top edge/bottom edge it is in the interests of the big players who are now long for them to then take profit as price moves higher – with a combination of algorithmic and momentum traders stepping into the change in the short term trend and liquidity being reduced on the Ask/Offer side this has the effect of the path of least resistance being UP in the short-term. It is important to be aware of pauses and changes to this as price moves up and hits resistance or key levels.

Bracketed areas/balance areas are where Market Makers make more money on the bid ask offer in the rotations – so observe the book activity in these balance areas. This can then be a prelude to changes in the book activity ahead of a break of a range and some of the 'spoofer' scenarios come into play to trap and mislead those reading the Limit Order Book. Yes games are also played at times on the LOB as you will discover, but with learning these scenarios you will be better prepared. See the Case Study examples.


## Key Features/Benefits of the OFA Book Addon

In addition to the OFA Book display which is one of the Key components of this Addon the following additional related Analysis tools are part of this toolset.

- Dynamically observe the change in the '**Shape**' of the Limit Order Book (LOB) for the duration of the current OFA Bar Auction – Probe & Rotation or one of other OFA Bar types eg OFA Seconds. This can be done using the OFA Book indicator added below the Price Panel chart so you have a direct alignment to the specific OFA Bar settings that you use (Probe & Rotation or Seconds/Minute) etc.
- These indicators fill in the 'missing' piece of the jigsaw with respect to the Limit Order Book information and complimenting the other OFA Tools. The data is presented in a readable format underneath the OFA Bars without needing to refer to the DOM in several format options.
- **TWO versions** of the OFA Book indicator are provided. The first displays as a cumulative or Bar by Bar basis in Candle form – similar to the Delta Candles in the OFA Delta Addon. The second form displays a **total bid line and a total ask line** showing a line updated on Auction Close for each change in the bid depth and ask depth for each Bar. This version is not cumulative and can be used to show and highlight the changes in the book as each bar unfolds. With the total bid ask lines observe the slope as there is a total increase in liquidity (median between the two lines) or a reduction in liquidity during or ahead of news events and volatility periods.
- The OFABook version can also be overlaid onto the Price Panel. This is illustrated in the training videos where 4 inside levels are used on the bid / offer side and the display is managed using a **line on close** overlaid on Price. This has the added value of observing the inside liquidity managed by the Dealers and Market Makers giving you in some instances a quicker view of a change in the 'Shape' of the limit order book. The videos illustrate this usage more clearly.
- Time your entries better as you are now using the key Limit Order Book (LOB) net changes information combined with some of the information covered in the Key patterns section above.
- Combine this OFA Book information with the Net Delta to improve your read and also some of the other OFA Addons being released ie OFA Block & Speed and Absorption tools to further enhance your interpretation of the order flow and price structure.
- The OFA Book version has a feature to use a different color for the book candle to highlight when there are more **net Bids** in a Down Auction and more **net Offers** in an Up Auction. Seeing this anomaly as a color change helps our read of the OFA Book with regard to the OFA Auctions.




- The OFA Booklines version highlights some interesting and clear **Cross patterns** of the Bid line vs Ask line help in the read of the changes and pressure in the Limit Order Book. Several examples of this illustrated in the Case Studies section.
- Note when the lines drop during news releases or other volatility events – this is indicative of liquidity being withdrawn and pulled on both sides and Market makers and liquidity providers await information before adding more liquidity back to the bid and offer side.
- Observe the Book Candles and the Highs and Lows leaving Pins behind as the book pressure changes from net Bid to net Offer and vice versa
- For those with access to LOB Depth levels > 10 in their data feed work with the Inside Book levels in OFA Book as price migrates to the larger resting levels 30 50 100 ticks away. Those will be notable by Larger Limit Volumes at these outer levels.

 **OFABook** ✕


Calculate the Cumulative/Bar By Bar Net Change in the Limit Order Book Depth for each Auction/Bar

**General** Options Tool Bar

Bar Type:  ▼ 

Number of Levels:  ▼

Bid Bar Color:  ▼

Ask Bar Color:  ▼

Cumulative Book

▼

## **OFA Book @ Indicator Parameters in the above Screenshot Figure**

To add this Indicator to a lower chart panel, select from the MW Studies Menu and the sub menu OFA Study

**Cumulative Book** – when enabled the net difference of the Bid Ask Book values will show as a cumulative total (similar to the cumulative delta indicator). When disabled the difference will appear on a bar by bar basis with the Open / Close / High / Low.

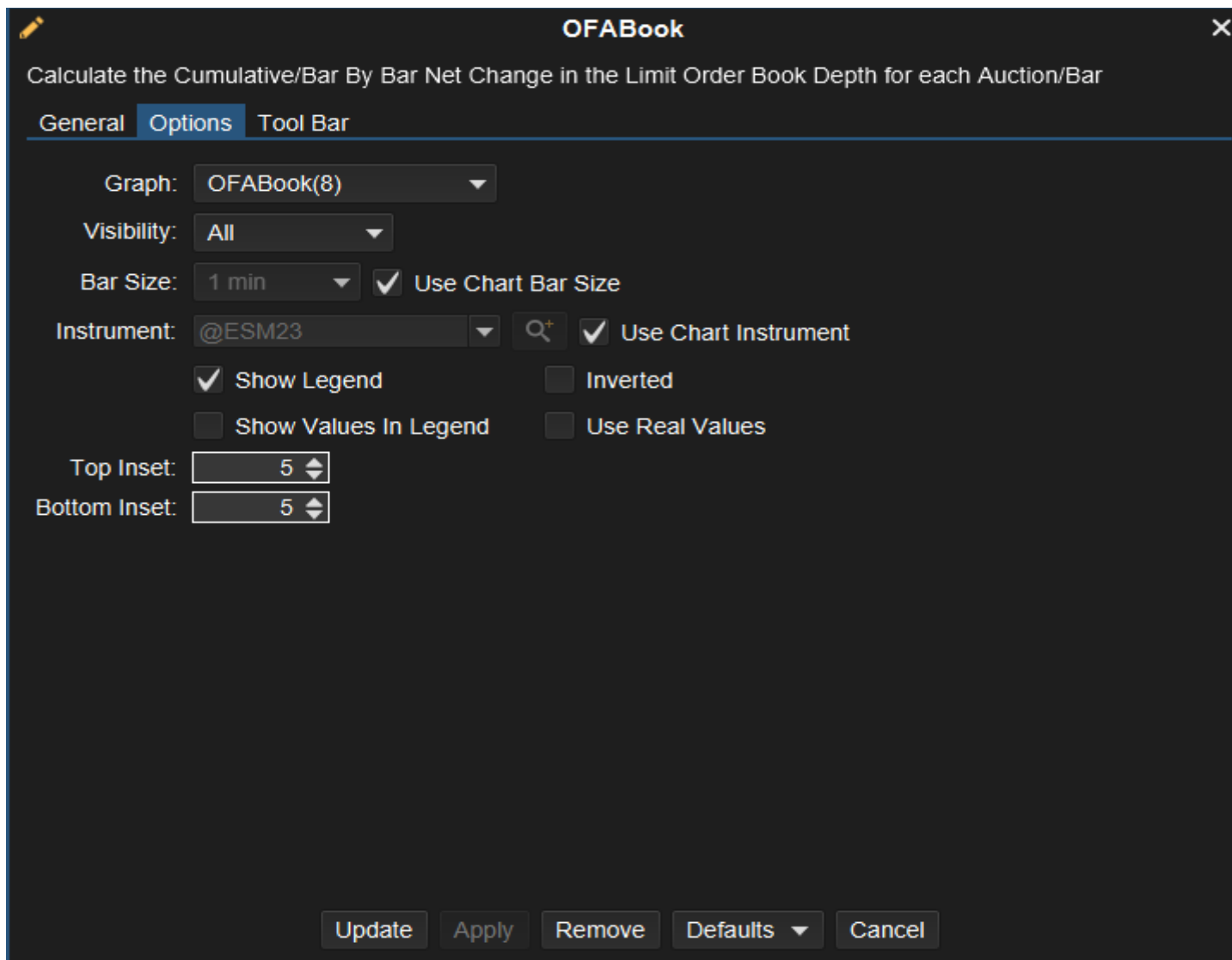
**Number of Levels** – this defines the number of Depth Levels to track and calculate for the duration of each OFA Auction bar. Typically use 8 levels for ES CL GC. 8 is a good level to start with most contracts and you can reduce or increase as you build experience of this.

Multiple instances of this can be loaded to test for example 6 levels 8 levels 10 levels for contracts you trade. Then focus on 1 level once you are happy with the data display. Or show one instance as Cumulative mode and the other as Non Cumulative (Bar by Bar) as shown in the Video examples in the MW Training library MW Book Lesson

**Bar Type** - select the Bar type display you want to use – typically the Candlestick option is selected for lower panels

**Bid Bar Color** – color of the Net Bids in the Order Book

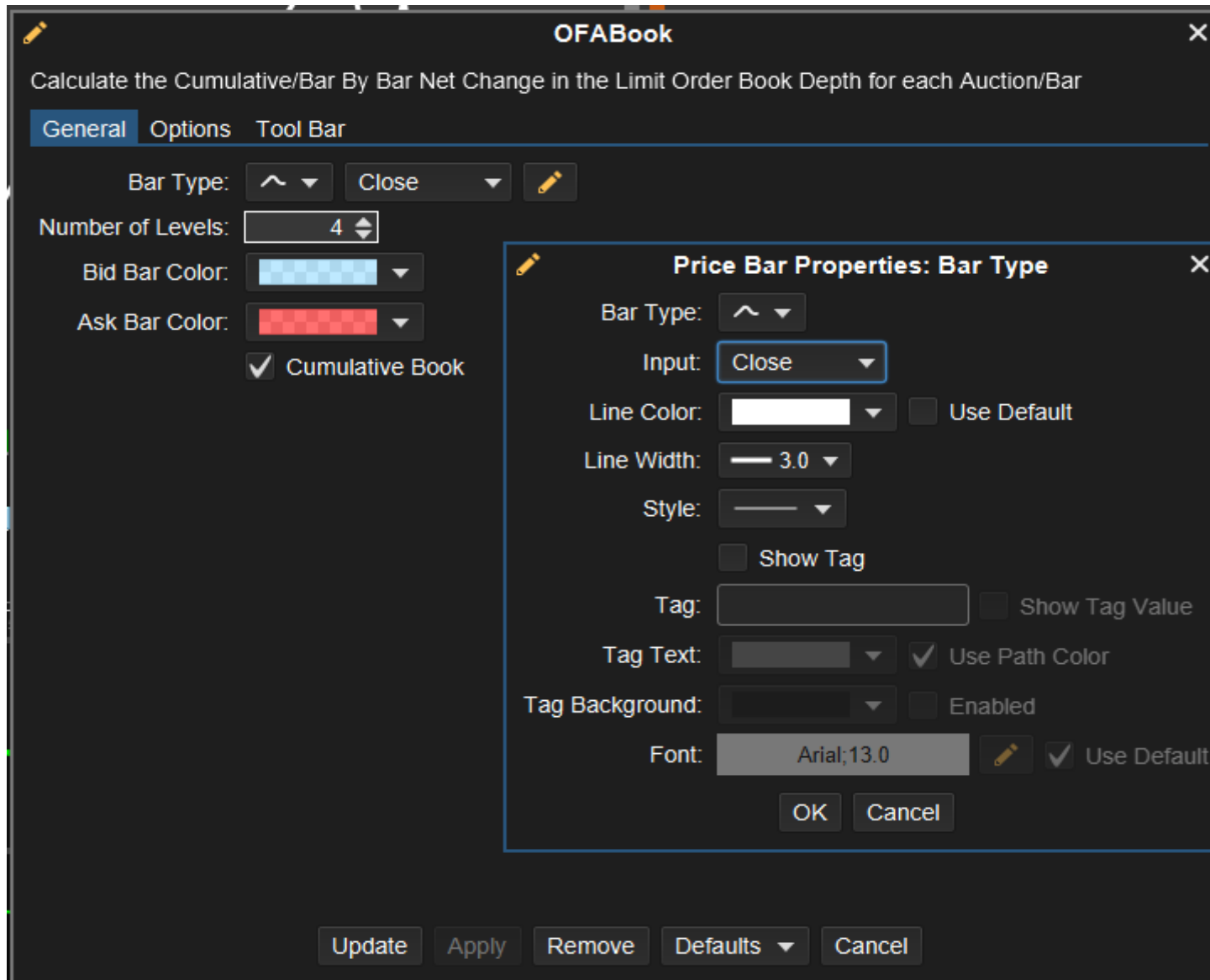
**Ask Bar Color** – color of the Net Offers/Ask in the Order Book





The above Panel is included to illustrate the Options Tab of the OFA Book – When using separate lower panel (graph) there is nothing else to change on this.



The above is included to show the Bar by Bar (Non Cumulative) settings for the OFA Book Study set to 8 levels in this instance





The above shows the settings for using the OFA Book Line on Close to Overlay on the Price panel for inside 4/Four bid/ask levels

 **OFABookLines** 

Calculate the Bar By Bar Change in the Limit Order Book Depth for each Auction/Bar, shown as separate Bid Ask Lines

**General** Options Tool Bar

Bid Line:    

Ask Line:    

Number of Levels:

## **OFA BookLines @ Study Parameters in the above Screenshot Figure**

To add this Study to a lower chart panel, select from the Study Menu and the OFA Study submenu

This version has 2 separate lines representing the **total** book liquidity for the Bid and the Ask. Note this version is line on close of each Auction/Bar.

**Number of Levels** - this defines the number of Depth Levels to track and calculate for the duration of each OFA Auction bar. Typically use 8 levels for ES CL GC. 8 is a good level to start with most contracts and you can reduce or increase as you build experience of this.

Multiple instances of this can be loaded to test for example 6 levels 8 levels 10 levels for contracts you trade. Then focus on 1 level once you are happy with the data display.

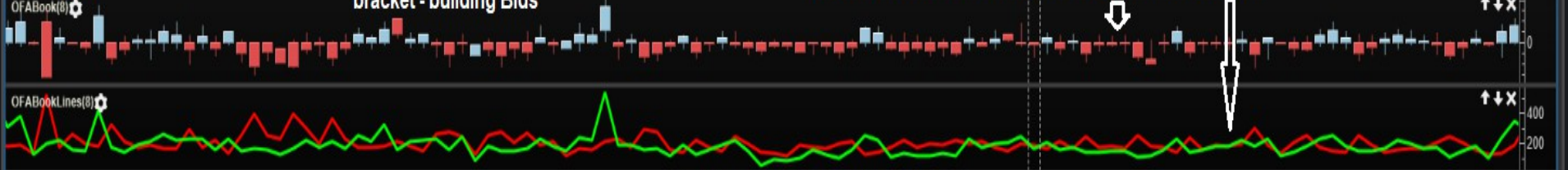
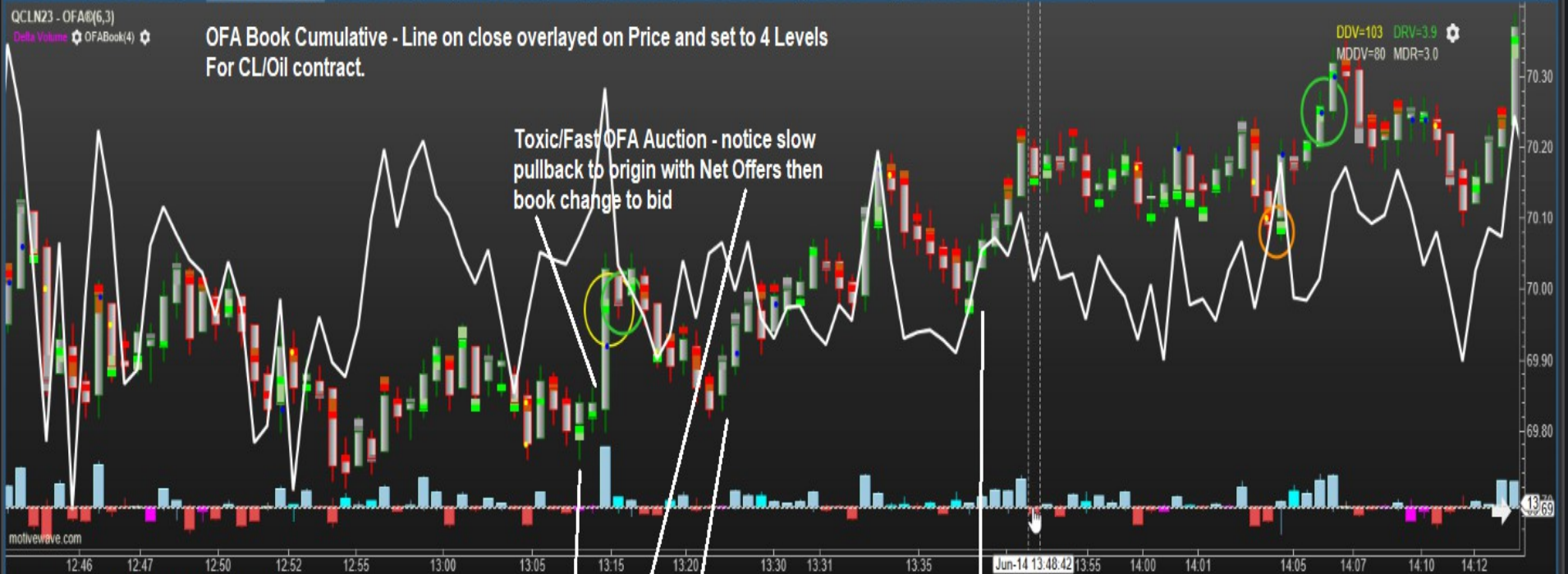
**Bid Book Line** – color / style / width properties of the Bid Book Line

**Offer Book Line** – color / style / width properties of the Offer Book Line



## **Case Studies**

The next section contains 18 case studies, illustrating this Addon features with annotated charts. Some of the case studies also include elements from the other Addons. The first 11 cover OFA Book studies in the MW platform and examples of the Wave Addon as well for MW.



QGCQ23 - OFA@6,3

Observe Net Bid Book strengthening into the 2pm Gold open : net buying deltas combined with book progress up - with liquidity relatively withdrawn on the Offer/Ask Side. Recommended initial pattern for users to work with Book and Delta in alignment - in this case Net Bids & Net buy delta.



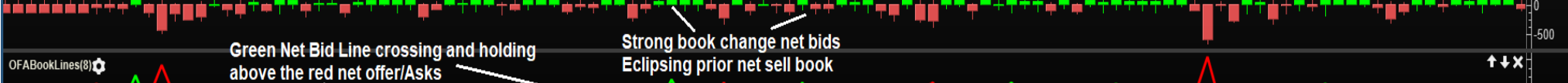
Delta Volume



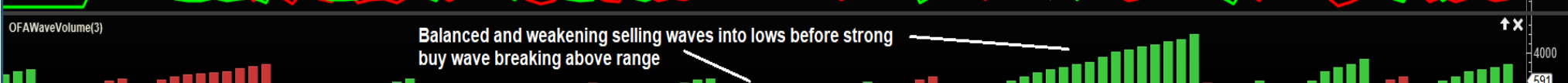
OFABook(8)



OFABook(8)

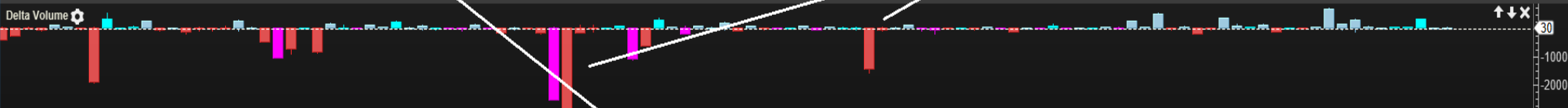
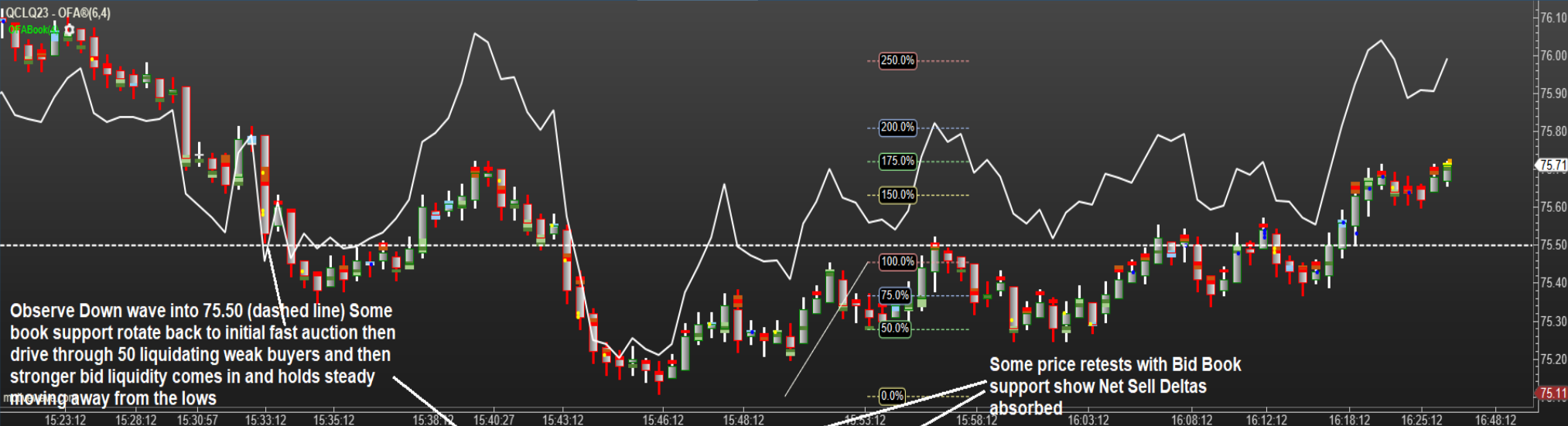


OFAWaveVolume(3)





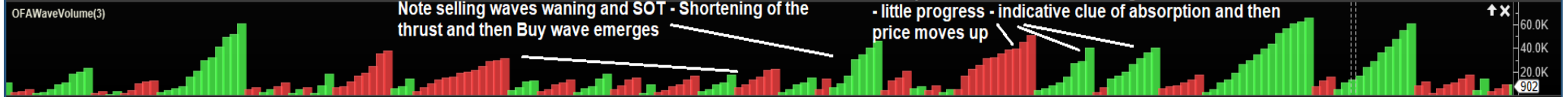
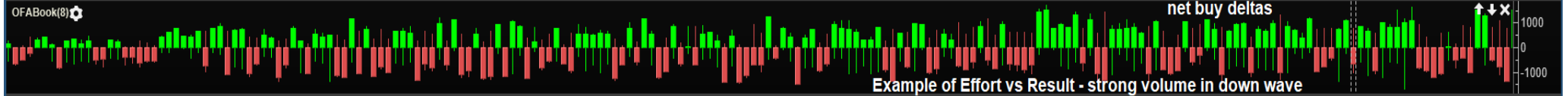
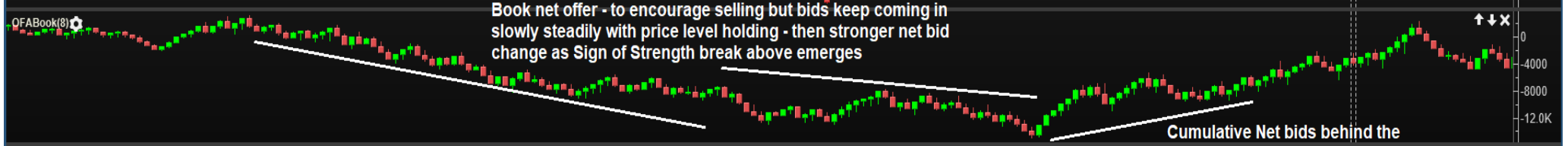
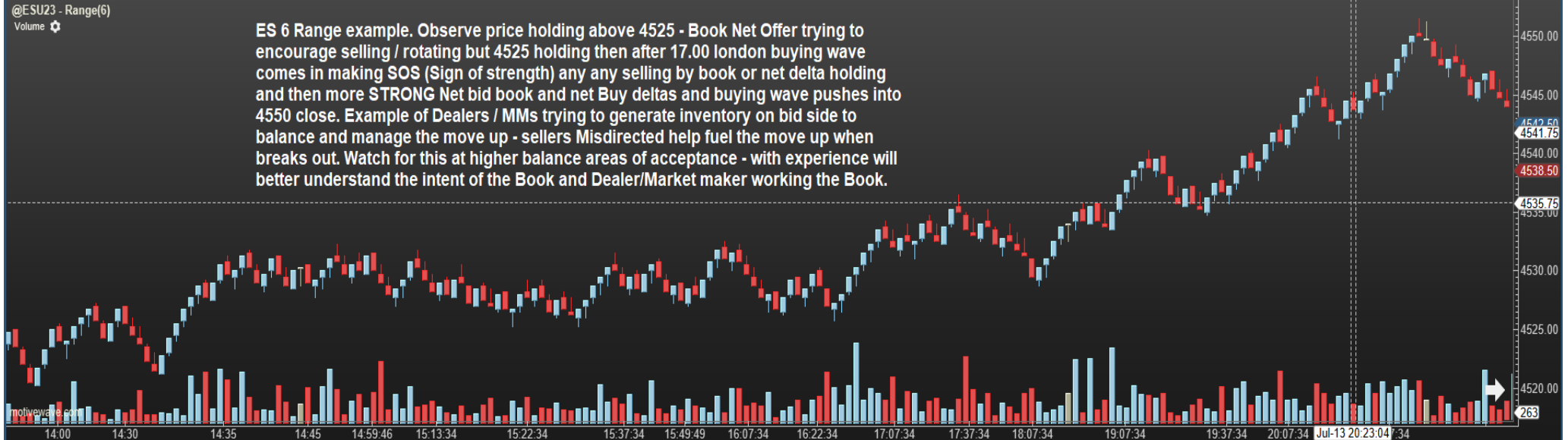








ES 6 Range example. Observe price holding above 4525 - Book Net Offer trying to encourage selling / rotating but 4525 holding then after 17.00 london buying wave comes in making SOS (Sign of strength) any any selling by book or net delta holding and then more STRONG Net bid book and net Buy deltas and buying wave pushes into 4550 close. Example of Dealers / MMs trying to generate inventory on bid side to balance and manage the move up - sellers Misdirected help fuel the move up when breaks out. Watch for this at higher balance areas of acceptance - with experience will better understand the intent of the Book and Dealer/Market maker working the Book.

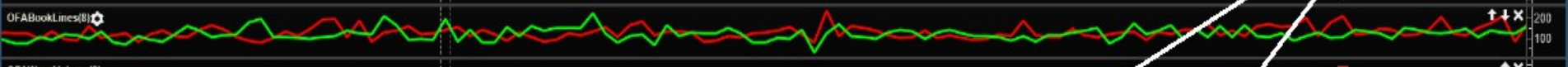
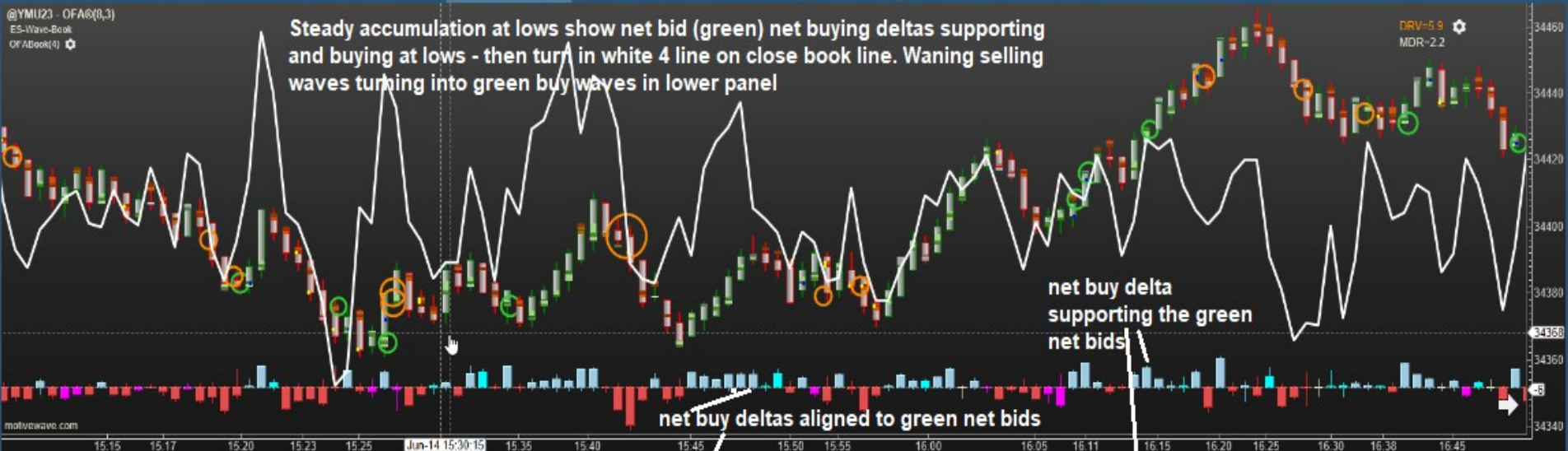








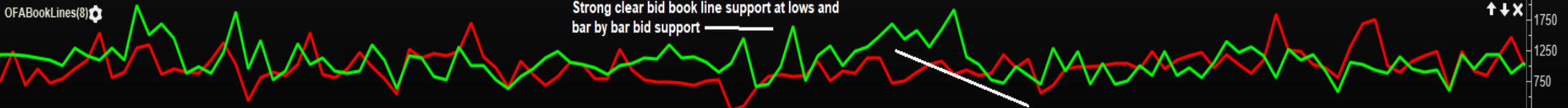
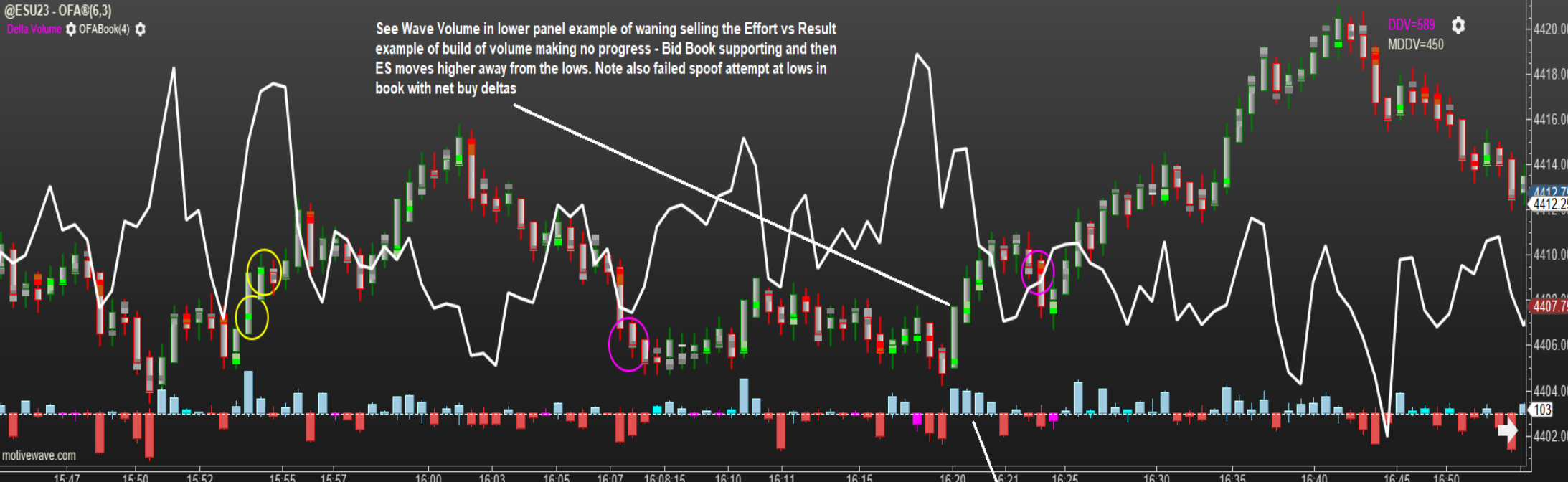
Steady accumulation at lows show net bid (green) net buying deltas supporting and buying at lows - then turn in white 4 line on close book line. Waning selling waves turning into green buy waves in lower panel



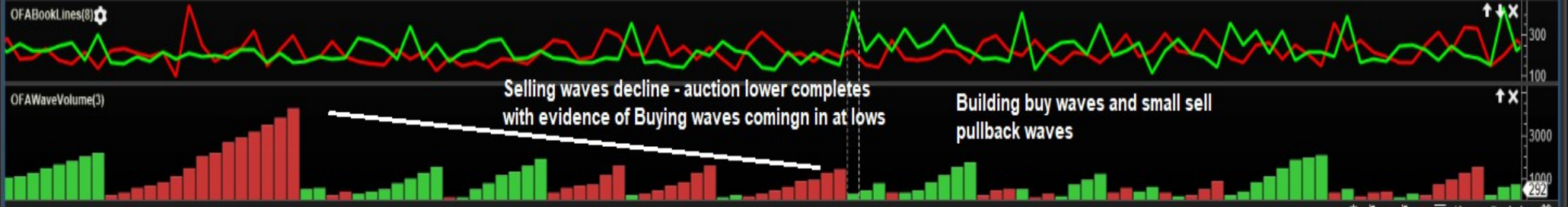
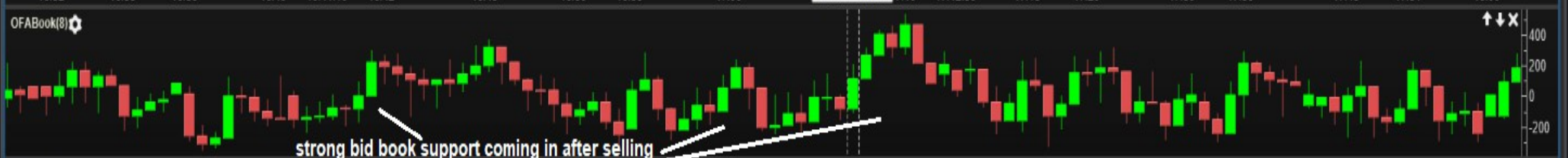
@ESU23 - OFA@6,3

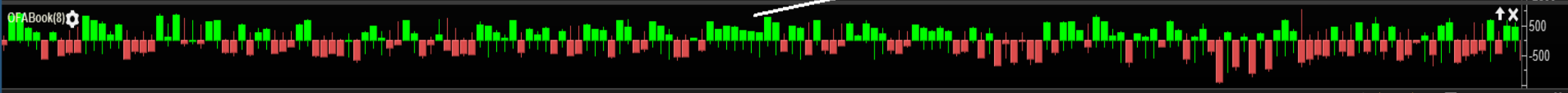
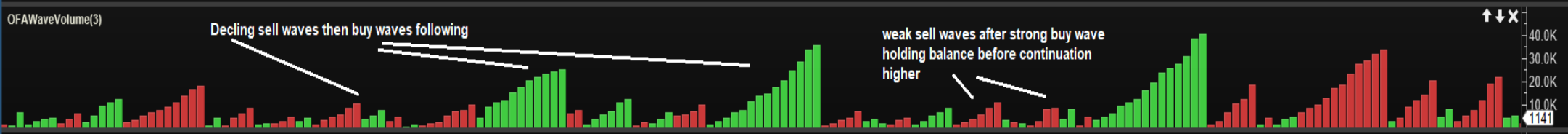
Delta Volume OFABook(4)

See Wave Volume in lower panel example of waning selling the Effort vs Result example of build of volume making no progress - Bid Book supporting and then ES moves higher away from the lows. Note also failed spoof attempt at lows in book with net buy deltas









For the sake of comparison to our OFA Book for Ninjatrade 8 – I decided to leave 'some' of the Case studies in this document. The calculation for each study is aligned. The internal level two(2) book Depth listening process is what differs in each platform. If you wish to see full list in NT8 you can find the PDF in the NT8 training library under the OFA Book lesson

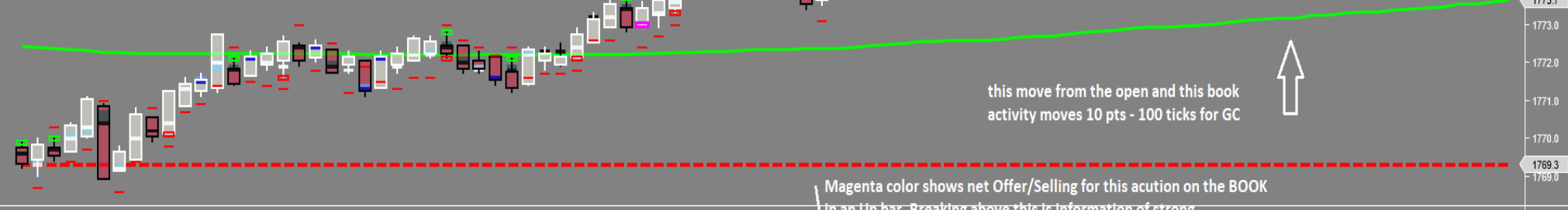
DP(1B) DP(1B A) DP(XB) DP(XB A) RP RP(A) SP SP(A) DP DP(A)

OFA @ (GC 12-22 (OFA@ (6/3)), 8, NinjaTrader.Gui.Tools.SimpleFont, 3)  
29/07/2022 15:03:28.632 - 29/07/2022 16:01:08.099

This example covers increase LOB limit order book Bid support and offers being withdrawn relative to Bid. Price holds with book even with net selling delta. Then At Open (white) & Globex ETH Vwap (magenta) strong selling appears on the book - this kind of volume represents more real time selling and profit taking and effort to get prices selling lower. Note the net selling delta is weak in this area. The magenta book candles show net selling/offer on the Book for Up auctions followed by Book change to Bid the Green and price continues. So some Sellers on the ASK book are then shaken off the trade and price moves higher. See the large surge in net buying deltas as confirmation of this price zone

White line the GC 2pm gmt open price

this move from the open and this book activity moves 10 pts - 100 ticks for GC



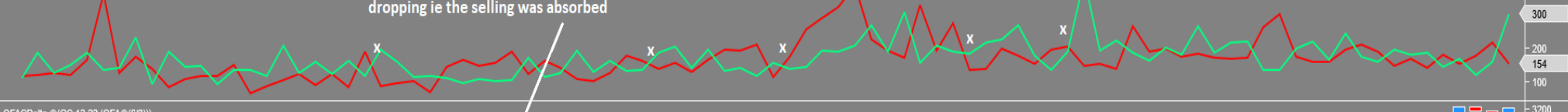
OFABook @ (GC 12-22 (OFA@ (6/3)), true, true, 1, 100, 8, true)



increase in green bid support tested in pullback. Price holds level into the accumulated OFA Book level even with net selling delta below dropping ie the selling was absorbed

Magenta color shows net Offer/Selling for this auction on the BOOK  
In an Up bar. Breaking above this is information of strong momentum and buyers continuing at higher prices

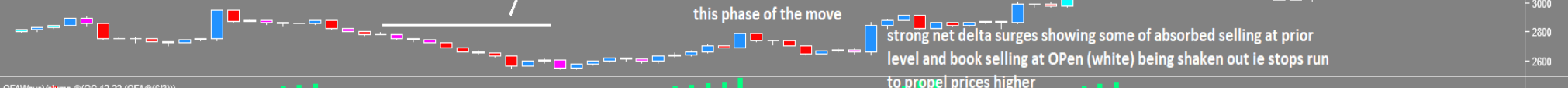
OFABookLines @ (GC 12-22 (OFA@ (6/3)), 1, 100, 8)



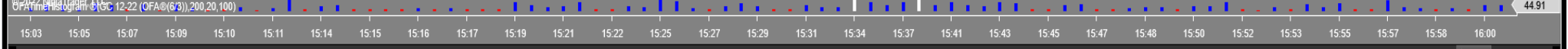
net selling deltas weak in this phase of the move

strong net delta surges showing some of absorbed selling at prior level and book selling at OPen (white) being shaken out ie stops run to propel prices higher

OFAcDelta @ (GC 12-22 (OFA@ (6/3)))



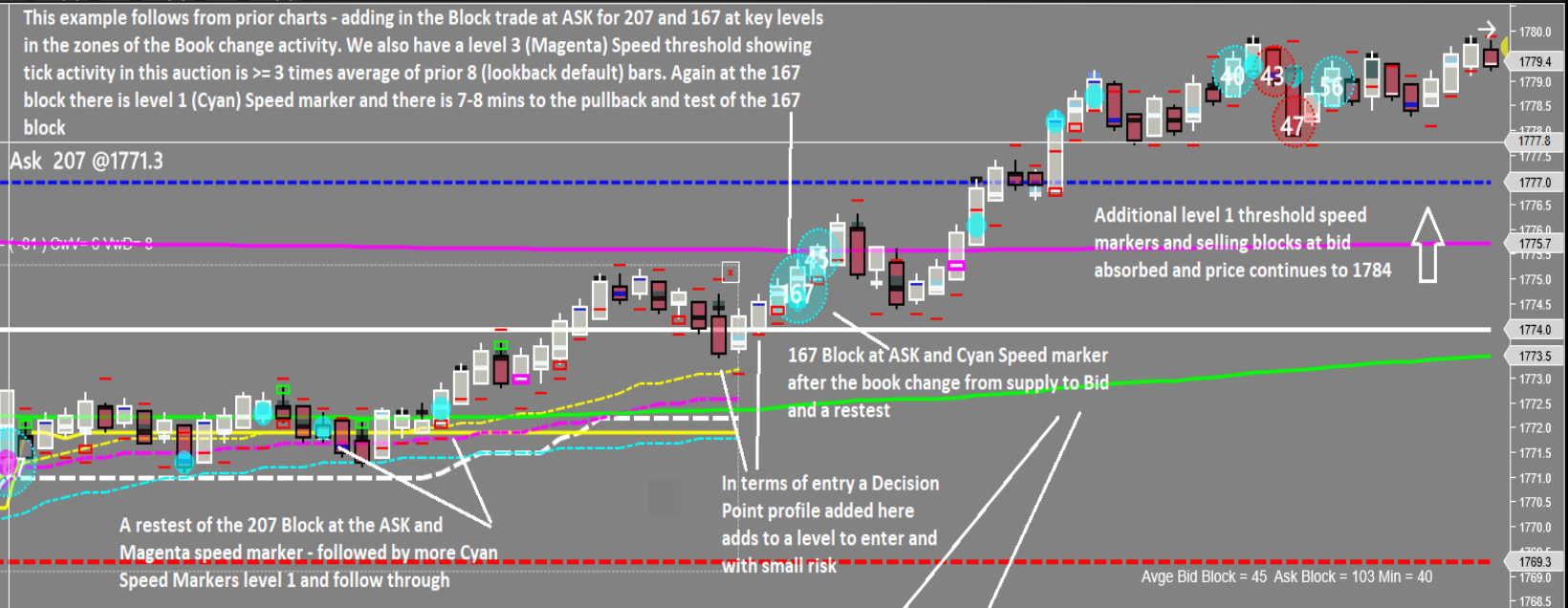
OFAWaveVolume @ (GC 12-22 (OFA@ (6/3)))



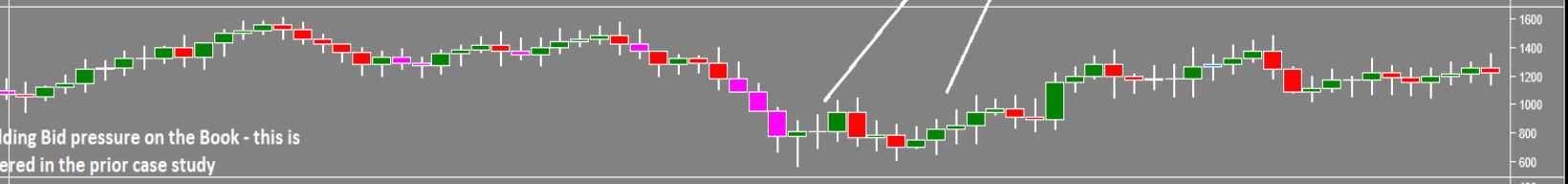
DP(1B) DP(1B A) DP(XB) DP(XB A) RP RP(A) SP SP(A) DP DP(A)

OFA @GC 12-22 (OFA@6/3), NinjaTrader.Gui.Tools.SimpleFont,3  
29/07/2022 15:02:26.220 - 29/07/2022 15:58:56.064

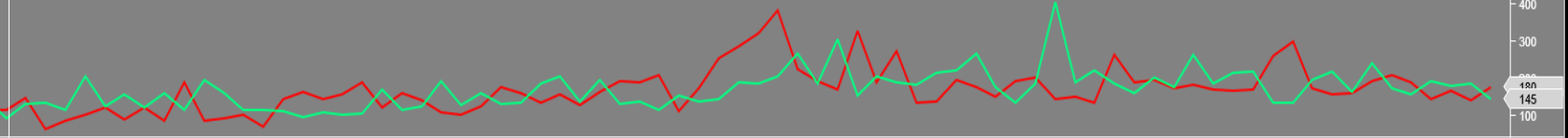
This chart shows the power of combining the OFA Book and OFA Block and Speed Addon for GC with some very clear effective signals to add to your trade narrative



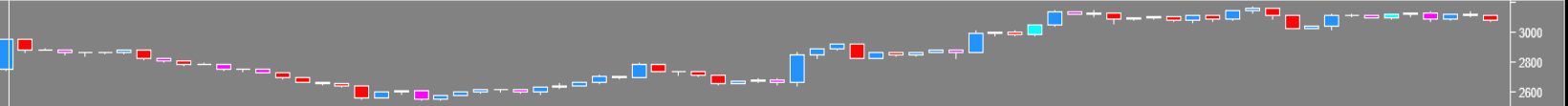
OFABook @GC 12-22 (OFA@6/3),true,true,1,100,8,true



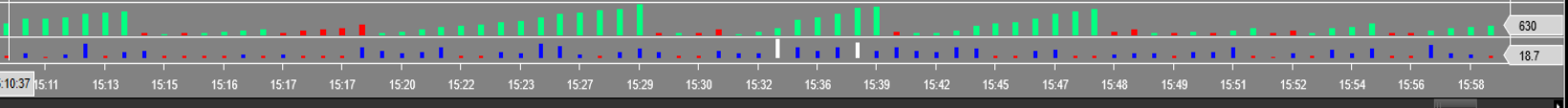
OFABookLines @GC 12-22 (OFA@6/3),1,100,8



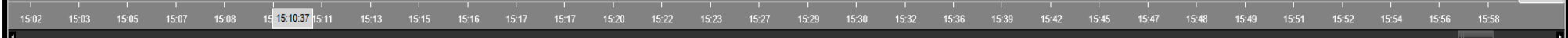
OFAcDelta @GC 12-22 (OFA@6/3)



OFAWaveVolume @GC 12-22 (OFA@6/3)

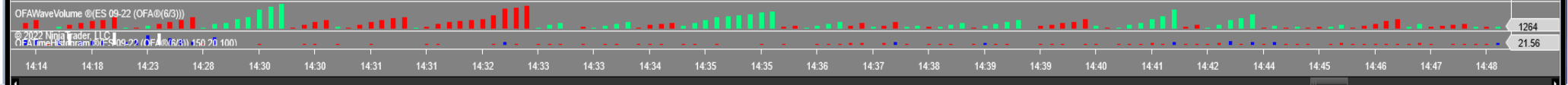
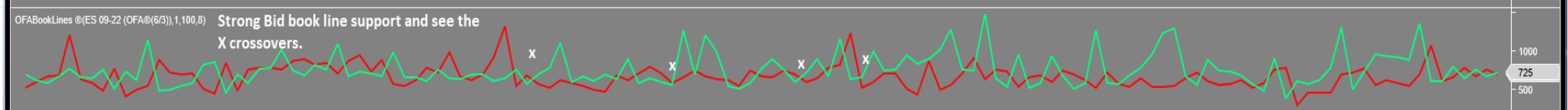
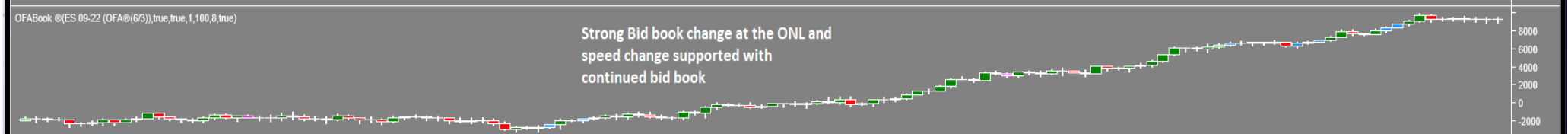
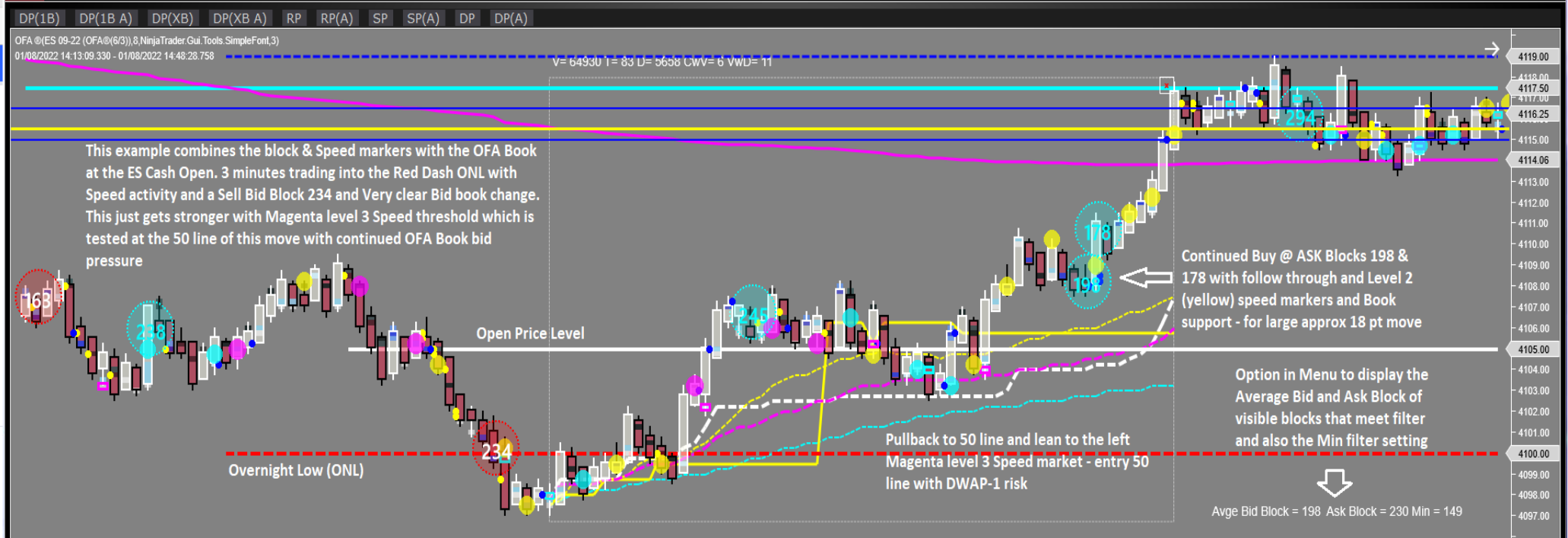


OFATime @GC 12-22 (OFA@6/3),200,20,100



ES 09-22 Stripe ES 09-22 5M ES 09-22 BasicW CL 09-22 5M CL 09-22 Basic GC 12-22 ES 09-22 ES 09-22 ES 09-22 NQ 09-22 GC 12-22 5M 6E 09-22 ES 09-22 UB 09-22 UB 09-22 53 ES 09-22 +







DP(1B) DP(1B A) DP(XB) DP(XB A) RP RP(A) SP SP(A) DP DP(A)

OFA @ (ES 09-22 (OFA@ (6/3)) 8,NinjaTrader.Gui.Tools.SimpleFont,3)  
02/08/2022 15:28:26.149 - 02/08/2022 15:53:17.861

V= 70988 T= 78 D= 3212 CwV= 7 VwD= 9

This case illustrates the use of the Bar by Bar (non-cumulative) mode for the OFA Book Indicator below. This is another option to view the LOB net difference Activity for each OFA Auction. The Book Lines version is beneath to show the similarity yet subtle difference of the separate total bid and ask lines where you can gauge the strength of each individually yet together for the overall Auction. Some users may prefer this view. Also you can note the Book changes in swing lows and in pullbacks looking for clear change in the net difference from supply to bids and vice versa

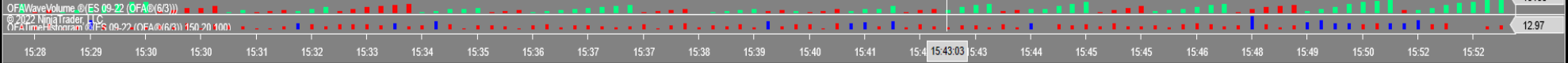
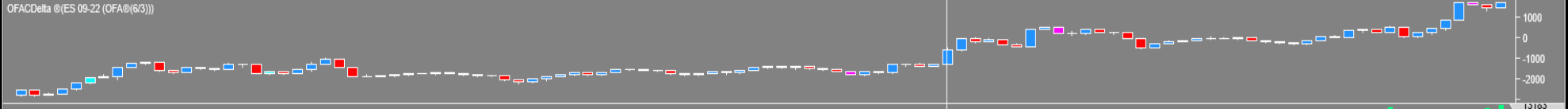
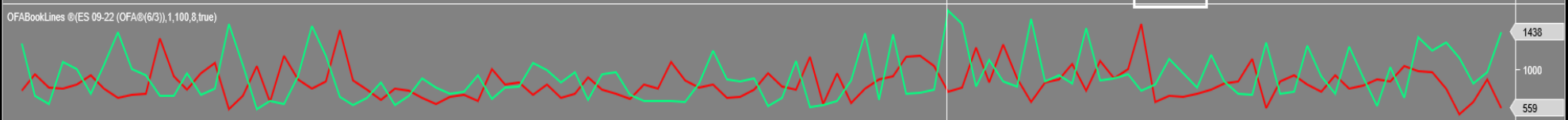
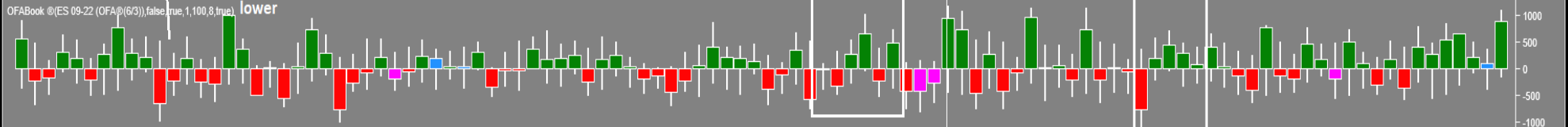
Ask 173 @4110 182 @4110.25  
at crosshairs 2 large ASK blocks with a Magenta Level 3 Speed Marker - strong support is retested for an entry near 50 line for over 12 pt move up

Pullback with some net delta selling then book change to net bid retest of Speed Marker and blocks  
US Cash Open Price White line

Evidence of large blocks @ BID holding level and then we break above Open - so absorption signs of the attempt to break lower

See the book change here and look left at the level 2 threshold (Yellow) speed markers with follow through Up

Avg Bid Block = 287 Ask Block = 321 Min = 141



OFA @ (ES 09-22 (OFA@ (6/3)), 8, NinjaTrader.Gui.Tools.SimpleFont, 3)  
 04/08/2022 17:22:30.762 - 04/08/2022 19:11:17.785

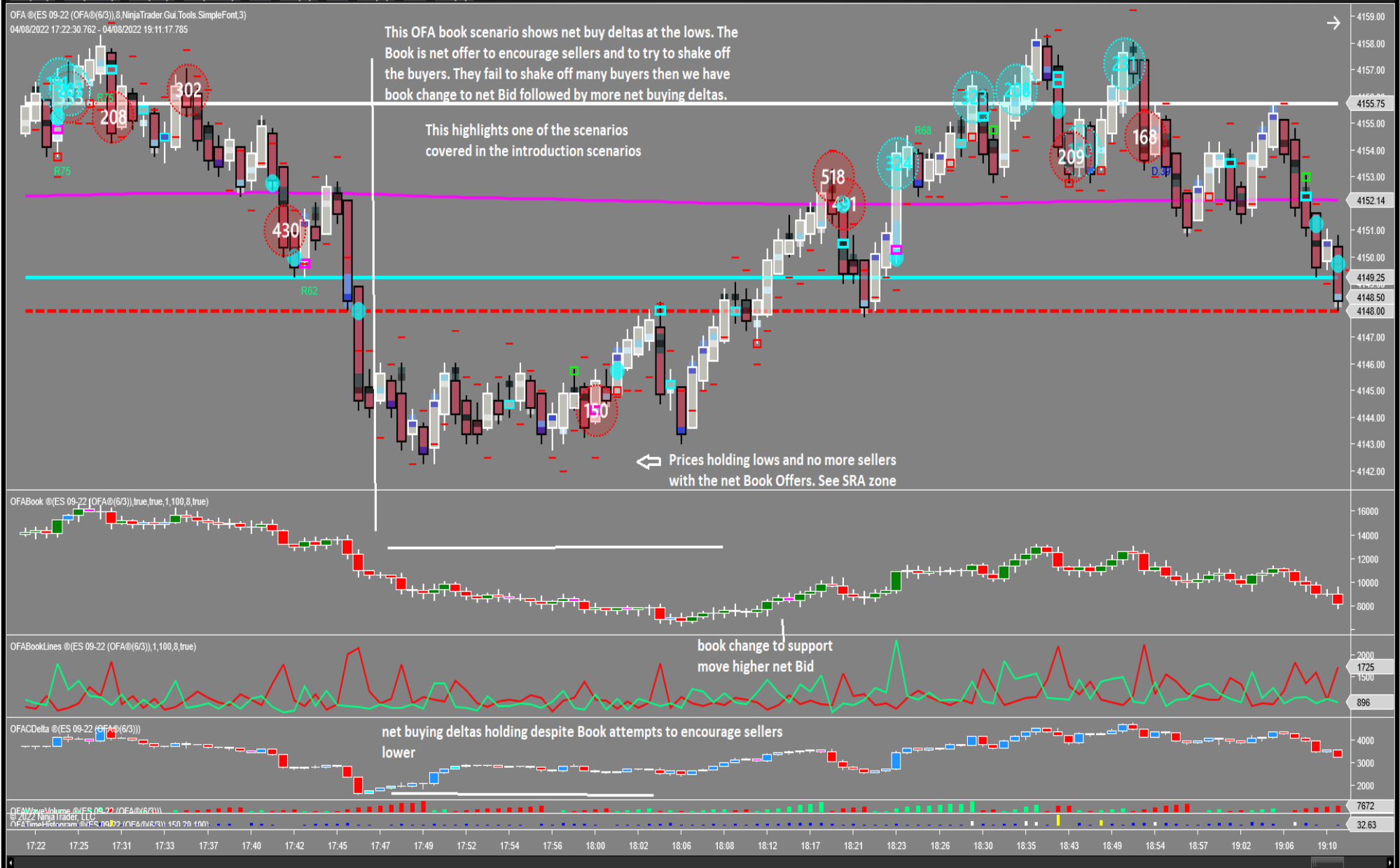
This OFA book scenario shows net buy deltas at the lows. The Book is net offer to encourage sellers and to try to shake off the buyers. They fail to shake off many buyers then we have book change to net Bid followed by more net buying deltas.

This highlights one of the scenarios covered in the introduction scenarios

← Prices holding lows and no more sellers with the net Book Offers. See SRA zone

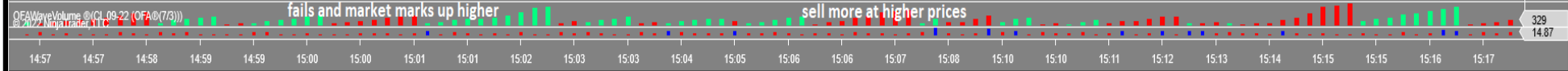
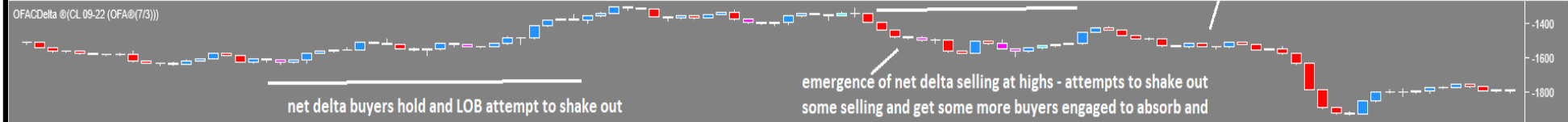
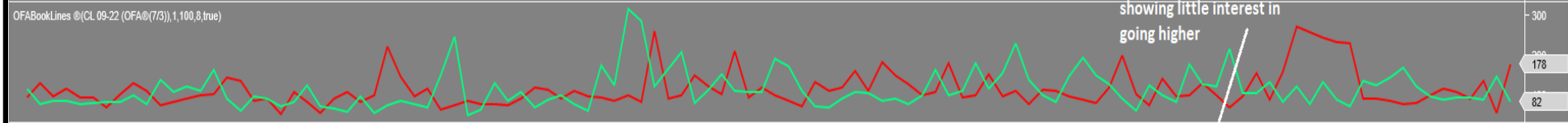
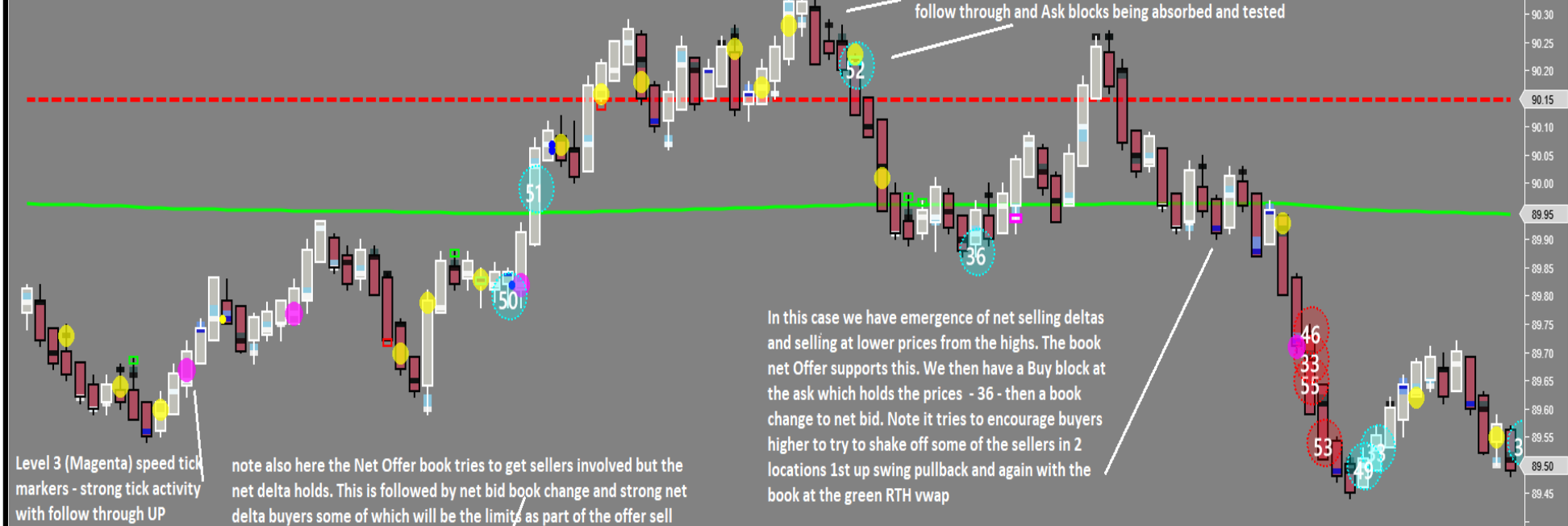
book change to support move higher net Bid

net buying deltas holding despite Book attempts to encourage sellers lower



DP(1B) DP(1B A) DP(XB) DP(XB A) RP RP(A) SP SP(A) DP DP(A)

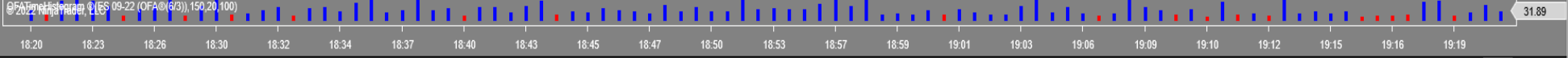
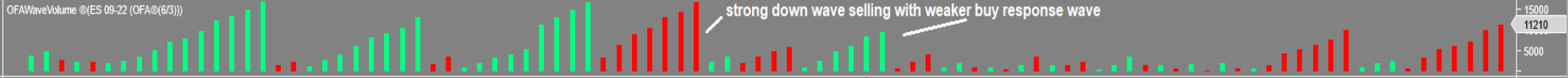
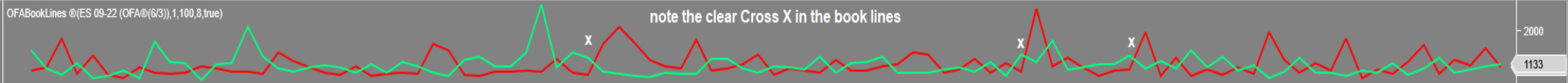
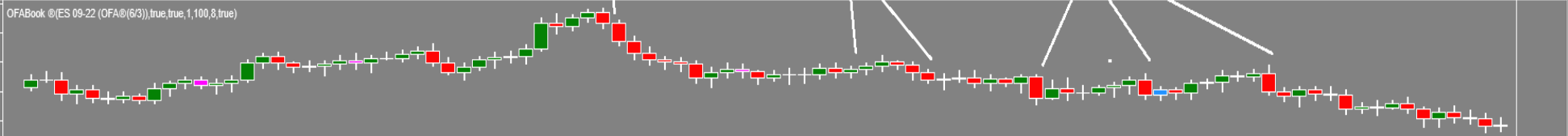
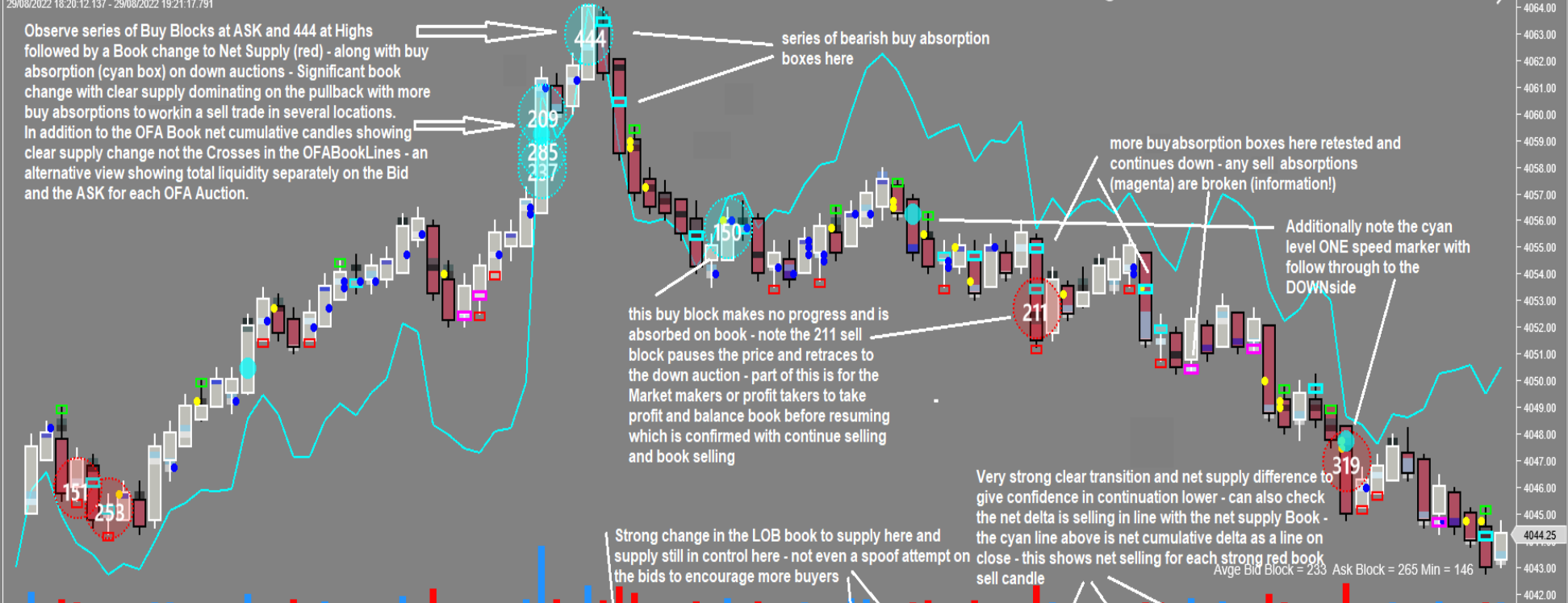
OFA @(CL 09-22 (OFA@(7/3)),8,NinjaTrader Gui Tools.SimpleFont,3)  
 04/08/2022 14:57:04.274 - 04/08/2022 15:17:53.360



OFA @ (ES 09-22 (OFA@ (6/3)), 8 NinjaTrader Gui Tools.SimpleFont(3), OFACDelta @ (ES 09-22 (OFA@ (6/3)))  
 29/08/2022 18:20:12.137 - 29/08/2022 19:21:17.791

Bid 211 @ 4052.75

Observe series of Buy Blocks at ASK and 444 at Highs followed by a Book change to Net Supply (red) - along with buy absorption (cyan box) on down auctions - Significant book change with clear supply dominating on the pullback with more buy absorptions to work in a sell trade in several locations. In addition to the OFA Book net cumulative candles showing clear supply change not the Crosses in the OFABookLines - an alternative view showing total liquidity separately on the Bid and the ASK for each OFA Auction.



## FAQ Section

### **How do I install this Addon? Requires minimum MW 6.7.8 Version installed.**

This is an Import process of the JAR file from the ZIP file you downloaded. See the download/installation section on the next page; which shows the MotiveWave Download page access on the site via My Account → Downloads/Install → MotiveWave. Once you have ordered and the license is assigned you will be able to access these file(s) on this MotiveWave download page. Please also check out the Settings video in the OFA Book Lesson. Please be patient for OFA support to complete another step in this process. This is slightly different for Studies compared to the process for OFA Core/Algox and other addons for MW from OFA. OFA will need to register the Addon with MW for each user so please be patient.

### **Do I need Level 2 data subscription for any features of this Addon – YES level 2 data is required for both studies in this Addon**

### **Why are there 2 version of the OFA Book ?**

To provide different options of presentation of the dynamic changes in the Order book captured during each Auction/Bar period.

The **OFA Book** Candle version can be displayed in both cumulative mode and bar by bar mode. This version calculates the Net Difference between the ASK limit liquidity and the BID limit liquidity in the Order book as the Auction Bar evolves. It captures some of the nuances of changes and those can be seen in the size of the Body (open / close) and the High and Low Wicks.

Seeing the Book supporting the Price action ie supporting bid pressure behind rising price is more intuitive and correlated and is clearer to see when there are book changes from supply to Bid at the Lows and Bid to Supply at the Highs.

The version **OFA BookLines** shows 2 separate lines for the Bid (Green) and Ask (Red) – these represent the total liquidity of each side of the Book and NOT the difference. This version is based as line on close changes in its display. You could run both of these on a chart or choose the one your prefer and which resonates and relates to your interpretation of the book changes.

It is recommended initially to not add too many of these OFA Order book indicators on too many charts as tracking the Market Depth and display will incur more resources. It is efficient and in the display but consider it is tracking all the depth changes on the order book then assimilating for display and refresh. Add to your key order entry charts initially and note the changes on the task manager for your PC and memory setup

### **Can I multiple instances of OFA Book onto the MW Chart.**

Yes you can add multiple instances and you can overlay OFA Book on the Price Panel as shown in the above and in the videos

# MotiveWave Requirements, Install, OFA Steps and Settings

For detailed features please visit the [OFA MotiveWave Tutorial Section](#)

## Key Details:

- ♦ Mac OS or Windows (recommend 64bit with 8+ GB RAM)
- ♦ Requires Real-Time Tick-by-Tick Order Flow Data
  - ♦ Continuum, CQG, Rithmic, Kinetic, IQfeed, eSignal, BarChart, FXCM, Gain
  - ♦ OFA not supported by IB, TDA, Google and others
- ♦ **REQUIRES MotiveWave License**
- ♦ [Download MotiveWave](#)
- ♦ [Detailed MotiveWave Support Guides](#)
- ♦ [Tutorials for OFA in MotiveWave](#)
- ♦ Technical Support [support@motivewave.com](mailto:support@motivewave.com) or [help@orderflowanalytics.com](mailto:help@orderflowanalytics.com)

## OFA is coded inside MotiveWave – Add-Ons are below (if purchasaed)

1. Follow onscreen instructions to setup workspace and datafeed
2. On any chart, right-click and select Chart Settings
3. Under Bar Settings > Bar Size select OFA Bars or OFA Linear Bars
4. Select an Interval or Probe and Rotation value

Once your Order has been processed for one of the 2 Addons for MW or the bundle you will see the Download zip files on the MW Download Page : Access via My Account - Download/Install - MotiveWave. Download the file(s) to your desktop download area. Open the zip file and import the .JAR file into MW Study Import study process.



[Download OFA Book Tools Add-On](#)

[Download OFA Wave Volume Tools Add-On](#)